

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellants:	Schottland, et al.	)	
		)	Group Art Unit: 1714
Serial No.:	10/619,643	)	
		)	
Filed:	July 15, 2003	)	Examiner: Vickey M. Ronesi
		)	
For:	COLORED POLYMERIC RESIN	)	
	COMPOSITION, ARTICLE MADE	)	
	THEREFROM, AND METHOD FOR	)	
	MAKING THE SAME	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF SUMMARY UNDER 37 C.F.R. §41.37 (c)(1)(v)**

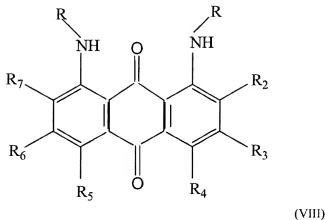
This paper is an Appeal Brief Summary required under 37 C.F.R. §41.37 (c)(1)(v) and is provided in response to a Notification of Non-compliant Appeal Brief mailed 9/8/06.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

Colored polymeric resin articles are utilized in all areas of commerce ranging from automotive and aerospace products. (Paragraph [0001]). Colors enhance the aesthetics, salability and often the useful life of an article, and can help distinguish brands. (Paragraph [0001]).

Some colorants, however, can adversely affect the ability to cure through the polymeric resin and thus have had limited commercial use in such applications. (Paragraph [0002]). Moreover, desirable colorants for coloring polymeric resins need to be compatible with the resins, heat stable enough to sustain the heat involved in the processing (e.g., extrusion, molding, thermoforming) of such resins, and/or yield transparent compositions allowing the desired curing in the UV region (at or around about 365nm). (Paragraphs [0002] and [0040]).

In independent Claim 1, a colored polymeric resin composition comprises a polymeric resin, wherein the polymeric resin is polyvinyl chloride, polyolefin, polyamide, polysulfone, polyimide, polyether imide, polyether sulfone, polyphenylene sulfide, polyether ketone, polyether ether ketone, ABS resin, polystyrene, polybutadiene, polyacrylate, polyacrylonitrile, polyacetal, polycarbonate (Paragraphs [0019]-[0035]), polyphenylene ether, ethylene-vinyl acetate copolymer, polyvinyl acetate, liquid crystal polymer, ethylene-tetrafluoroethylene copolymer, polyvinyl fluoride, polyvinylidene fluoride, polyvinylidene chloride, polytetrafluoroethylene, or combinations comprising at least one of the foregoing polymeric resins (Paragraph [0017]); and a 1,8-diaminoanthraquinone derivative (Paragraph [0036]) having a purity of greater than or equal to about 90 wt% (Paragraph [0038]) and having a Formula (VIII):

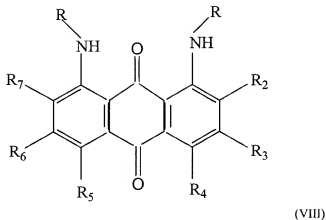


wherein R<sub>2</sub> - R<sub>7</sub> are, individually, selected from the group consisting of a hydrogen atom, an

aliphatic group, an aromatic group, a heterocyclic group, a halogen atom, a cyano group, a nitro group,  $-\text{COR}_9$ ,  $-\text{COOR}_9$ ,  $\text{NR}_{10}\text{COR}_{11}$ ,  $-\text{NR}_{10}\text{SO}_2\text{R}_{11}$ ,  $-\text{CONR}_9\text{R}_{10}$ ,  $-\text{CONHSO}_2\text{R}_{11}$ , and  $-\text{SO}_2\text{NHCOR}_{11}$ ; in which  $\text{R}_9$  and  $\text{R}_{10}$  are, individually, selected from the group consisting of a hydrogen atom, an aliphatic group, an aromatic group, and a heterocyclic group; wherein  $\text{R}_{11}$  is selected from the group consisting of an aliphatic group, an aromatic group, and a heterocyclic group; and wherein R is selected from the group consisting of cyclohexyl, isopropyl, 3-N,N-dimethylaminopropyl, N,N-diethylaminoethyl, an allyl group containing 3 to 20 carbon atoms, a hydroxyl group, a 5-membered heterocyclic ring, and a 6-membered heterocyclic ring.

Dependent Claim 27 further defines the polymeric resin in Claim 1 to be a polycarbonate resin having a weight average molecular weight of about 20,000 (Paragraph [0035]) and dependent Claim 31 is directed to an article formed from the composition of Claim 27 (at least at Paragraphs [0004], [0006], [0016], [0017], and [0042]).

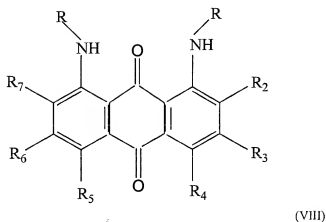
In independent Claim 24, a colored polymeric resin composition comprises a polymeric resin, wherein the polymeric resin is polyvinyl chloride, polyolefin, polyamide, polysulfone, polyimide, polyether imide, polyether sulfone, polyphenylene sulfide, polyether ketone, polyether ether ketone, ABS resin, polystyrene, polybutadiene, polyacrylate, polyacrylonitrile, polyacetal, polycarbonate (Paragraphs [0019]-[0035]), polyphenylene ether, ethylene-vinyl acetate copolymer, polyvinyl acetate, liquid crystal polymer, ethylene-tetrafluoroethylene copolymer, polyvinyl fluoride, polyvinylidene fluoride, polyvinylidene chloride, polytetrafluoroethylene, or combinations comprising at least one of the foregoing polymeric resins (Paragraph [0017]); and a 1,8-diaminoanthraquinone derivative (Paragraph [0036]) having a Formula (VIII):



wherein  $\text{R}_2 - \text{R}_7$  are, individually, selected from the group consisting of a hydrogen atom, an

aliphatic group, an aromatic group, a heterocyclic group, a halogen atom, a cyano group, a nitro group,  $-\text{COR}_9$ ,  $-\text{COOR}_9$ ,  $-\text{NR}_{10}\text{COR}_{11}$ ,  $-\text{NR}_{10}\text{SO}_2\text{R}_{11}$ ,  $-\text{CONR}_9\text{R}_{10}$ ,  $-\text{CONHSO}_2\text{R}_{11}$ , and  $-\text{SO}_2\text{NHCOR}_{11}$ ; in which  $\text{R}_9$  and  $\text{R}_{10}$  are, individually, selected from the group consisting of a hydrogen atom, an aliphatic group, an aromatic group, and a heterocyclic group; wherein  $\text{R}_{11}$  is selected from the group consisting of an aliphatic group, an aromatic group, and a heterocyclic group; and wherein  $\text{R}$  is selected from the group consisting of cyclohexyl, isopropyl, 3-N,N-dimethylaminopropyl, N,N-diethylaminoethyl, an allyl group containing 3 to 20 carbon atoms, a hydroxyl group, a 5-membered heterocyclic ring, and a 6-membered heterocyclic ring; wherein an article formed from the composition has a hue angle value of less than or equal to about 330 degrees (when used at a loading of 0.01 pph at an article thickness of 3.2 mm) (Paragraphs [0005] and [0012]).

In independent Claim 32, a method of making (Paragraph [0006]) a colored polymeric article comprises forming a composition of a polymeric resin and a 1,8-diaminoanthraquinone derivative, wherein the polymeric resin is polyvinyl chloride, polyolefin, polyamide, polysulfone, polyimide, polyether imide, polyether sulfone, polyphenylene sulfide, polyether ketone, polyether ether ketone, ABS resin, polystyrene, polybutadiene, polyacrylate, polyacrylonitrile, polyacetal, polycarbonate (Paragraphs [0019]-[0035]), polyphenylene ether, ethylene-vinyl acetate copolymer, polyvinyl acetate, liquid crystal polymer, ethylene-tetrafluoroethylene copolymer, polyvinyl fluoride, polyvinylidene fluoride, polyvinylidene chloride, polytetrafluoroethylene, or combinations comprising at least one of the foregoing polymeric resins (Paragraph [0017]), and wherein the 1,8-diaminoanthraquinone derivative (Paragraph [0036]) has a purity of greater than or equal to about 90 wt% (Paragraph [0038]), and has a Formula (VIII):



wherein  $R_2 - R_7$  are, individually, selected from the group consisting of a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a halogen atom, a cyano group, a nitro group,  $--COR_9$ ,  $--COOR_9$ ,  $--NR_{10}COR_{11}$ ,  $--NR_{10}SO_2R_{11}$ ,  $--CONR_9R_{10}$ ,  $--CONHSO_2R_{11}$ , and  $--SO_2NHCOR_{11}$ ; in which  $R_9$  and  $R_{10}$  are, individually, selected from the group consisting of a hydrogen atom, an aliphatic group, an aromatic group, and a heterocyclic group; wherein  $R_{11}$  is selected from the group consisting of an aliphatic group, an aromatic group, and a heterocyclic group; and wherein  $R$  is selected from the group consisting of cyclohexyl, isopropyl, 3-N,N-dimethylaminopropyl, N,N-diethylaminoethyl, an allyl group containing 3 to 20 carbon atoms, a hydroxyl group, a 5-membered heterocyclic ring, and a 6-membered heterocyclic ring; wherein the 1,8-anthraquinone derivative gives a hue angle value of less than or equal to about 330 degrees (when used at a loading of 0.01 pph at an article thickness of 3.2 mm) (Paragraph [0012]); and forming the composition into the article (at least at Paragraphs [0004], [0006], [0016], [0017], and [0042]).

If there are any additional charges with respect to this paper, please charge them to Deposit Account No. 07-0893.

Respectfully submitted,

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